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FILE 'CAPLUS' ENTERED AT 22:57:40 ON 09 NOV 2008

ACCESSION NUMBER: 2002:668660 CAPLUS

DOCUMENT NUMBER: 138:265440

SCH 206272: a potent, orally active tachykinin NK1, TITLE:

NK2, and NK3 receptor antagonist

Anthes, John C.; Chapman, Richard W.; Richard, AUTHOR(S):

> Christian; Eckel, Stephen; Corboz, Michel; Hey, John A.; Fernandez, Xiomara; Greenfeder, Scott; McLeod, Robbie; Sehring, Susan; Rizzo, Charles; Crawley, Yvette; Shih, Neng-Yang; Piwinski, John; Reichard, Greg; Ting, Pauline; Carruthers, Nick; Cuss, Francis M.; Billah, Motasim; Kreutner, William; Egan, Robert

CORPORATE SOURCE: Department of Allergy, Schering-Plough Research

Institute, Kenilworth, NJ, 07033, USA

SOURCE: European Journal of Pharmacology (2002), 450(2),

191-202

CODEN: EJPHAZ; ISSN: 0014-2999

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal English LANGUAGE:

44 REFERENCE COUNT: THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> FIL STNGUIDE

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=> s (NK1 (5A) (receptor(3A)antagonist))
          2399 (NK1 (5A) (RECEPTOR(3A) ANTAGONIST))
=> s L9 (P) (anticholinergic or bronchodilat? or (M3 (3A) muscarinic(2A)antagonist))
            17 L9 (P) (ANTICHOLINERGIC OR BRONCHODILAT? OR (M3 (3A) MUSCARINIC
               (2A) ANTAGONIST))
=> s L10 and scopine
             0 L10 AND SCOPINE
=> dup rem L10
PROCESSING COMPLETED FOR L10
L12
             17 DUP REM L10 (0 DUPLICATES REMOVED)
=> s L12 NOT Pd>20020708
             5 L12 NOT PD>20020708
L13
=> d L13 1-5 TI AB IBIB
L13 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN
ΤI
     Pharmacology of MEN 11467: a potent new selective and orally-effective
     peptidomimetic tachykinin NK1 receptor antagonist
     We have investigated the pharmacol. properties of MEN 11467, a novel
AB
     partially retro-inverse peptidomimetic antagonist of tachykinin NK1
     receptors. MEN 11467 potently inhibits the binding of [3H] substance P
     (SP) to tachykinin NK1 receptors in the IM9 lymphoblastoid cell line (pKi
     = 9.4.+-.0.1). MEN 11467 is highly specific for the human tachykinin NK1
     receptors, since it has negligible effects (pKi <6) on the binding of
     specific ligands to tachykinin NK2 or NK3 receptors and to a panel of 30
     receptors ion channels unrelated to tachykinin receptors. The antagonism
     exerted by MEN 11467 at tachykinin NK1 receptors is insurmountable in
     satn. binding expts., both KD and Bmax of SP were significantly reduced by
     MEN 11467 (0.3-10 nM). In the guinea-pig isolated ileum, MEN 11467
     (0.03-1 nM) produced a nonparallel rightward shift of the concn.-response
     curve to SP methylester with a concomitant redn. of the Emax to the
     agonist (pKB = 10.7.+-.0.1). Moreover the antagonist activity of MEN
     11467 was hardly reversible despite prolonged washout. In vivo, MEN 11467
     produced a long lasting (> 2-3 h) dose-dependent antagonism of
     bronchoconstriction induced by the selective tachykinin NK1 receptor
     agonist, [Sar9, Met(O2)11]SP in anesthetized guinea-pigs (ID50s' =
     29.+-.5, 31.+-.12 and 670.+-.270 .mu.g/kg, after i.v., intranasal and
     intraduodenal administration, resp.), without affecting
     bronchoconstriction induced by methacholine. After oral administration
    MEN 11467 produced a dose-dependent inhibition of plasma protein
     extravasation induced in quinea-pig bronchi by [Sar9, Met(O2)11] (ID50 =
     6.7.+-.2 mg/kg) or by antigen challenge in sensitized animals (ID50 = 1.3
     mg/kg). After i.v. administration MEN 11467 weakly inhibited the GR
     73632-induced foot tapping behavior in gerbil (ED50 = 2.96.+-.2 mg/kg),
     indicating a poor ability to block central tachykinin NK1 receptors.
     These results demonstrate that MEN 11467 is a potent, highly selective and
     orally effective insurmountable pseudopeptide antagonist of peripheral
     tachykinin NK1 receptors with a long duration of action.
ACCESSION NUMBER:
                         2002:484021 CAPLUS
DOCUMENT NUMBER:
                         137:379900
TITLE:
                         Pharmacology of MEN 11467: a potent new selective and
                         orally-effective peptidomimetic tachykinin NK1
                        receptor antagonist
AUTHOR(S):
                        Cirillo, R.; Astolfi, M.; Conte, B.; Lopez, G.;
                         Parlani, M.; Sacco, G.; Terracciano, R.; Fincham, C.
                         I.; Sisto, A.; Evangelista, S.; Maggi, C. A.; Manzini,
```

S.

CORPORATE SOURCE: Department of Pharmacology, Menarini Ricerche SpA,

Pomezia-Roma, I-00040, Italy

SOURCE: Neuropeptides (Edinburgh, United Kingdom) (2001),

35(3&4), 137-147

CODEN: NRPPDD; ISSN: 0143-4179

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN

 ${
m TI}$ In vitro and in vivo pharmacology of S 16474, a novel dual tachykinin NK1 and NK2 receptor antagonist

AΒ Since tachykinins released from lung sensory nerve endings are thought to play a role in inflammatory diseases of airways via NK1 and NK2 receptors, dual tachykinin NK1 and NK2 receptor antagonists may have a great therapeutic potential. In vitro, the cyclopeptide S 16474 (cyclo-[Abo-Asp(D-Trp(SucONa)-Phe-N-(Me)Bzl)]) bound to both human tachykinin NK1 and NK2 receptors expressed in two lines of transfected Chinese hamster ovary cells (IC50 values 85 nM and 129 nM, resp.), while showing a poor affinity for the rat tachykinin NK1 receptor. S 16474 inhibited the contractions induced by substance P in isolated rabbit vena cava (pA2 7.0) and by neurokinin A in rabbit pulmonary artery (pA2 5.6). In vivo in anesthetized guinea-pigs, S 16474 was found to dose dependently inhibit the bronchoconstrictions induced by i.v. administered substance P, neurokinin A and capsaicin. Plasma extravasation evoked in bronchi by endogenously released tachykinins under vagus nerve stimulation was abolished by S 16474 (10 .mu.mol/kg i.v.). These results demonstrate clearly that S 16474 is a tachykinin receptor antagonist exhibiting, in vitro and in vivo, a dual inhibitory effect on NK1 and NK2 receptors.

ACCESSION NUMBER: 1996:7149 CAPLUS

DOCUMENT NUMBER: 124:136392

AUTHOR(S):

ORIGINAL REFERENCE NO.: 124:25139a,25142a

TITLE: In vitro and in vivo pharmacology of S 16474, a novel

dual tachykinin NK1 and NK2 receptor antagonist Robineau, Pascale; Lonchampt, Michel; Kucharczyk,

Nathalie; Krause, James E.; Regoli, Domenico;

Fauchere, Jean-Luc; Prost, Jean-Francois; Canet,

Emmanuel

CORPORATE SOURCE: Division de Pneumologie, Institut de Recherches

Servier, 11 Rue des Moulineaux, Suresnes, F-92150, Fr.

SOURCE: European Journal of Pharmacology (1995), 294(2/3),

677-84

CODEN: EJPHAZ; ISSN: 0014-2999

PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

L13 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN

TI In vitro and in vivo biological activities of SR140333, a novel potent non-peptide tachykinin NK1 receptor antagonist

AB SR140333 (I) is a new non-peptide antagonist of tachykinin NK1 receptors. SR140333 potently, selectively and competitively inhibited substance P binding to NK1 receptors from various animal species, including humans. In vitro, it was a potent antagonist in functional assays for NK1 receptors such as [Sar9,Met(O2)11]substance P-induced endothelium-dependent relaxation of rabbit pulmonary artery and contraction of guinea-pig ileum. Up to 1 .mu.M, it had no effect in bioassays for NK2 ([.beta.Ala8]neurokinin A-induced contraction of

endothelium-deprived rabbit pulmonary artery) and NK3 ([MePhe7]neurokinin B-induced contraction of rat portal vein) receptors. The antagonism exerted by SR140333 toward NK1 receptors was apparently non-competitive, with pD2' values (antagonism potency evaluated by the neg. logarithm of the molar concn. of antagonist that produces a 50% redn. of the maximal response to the agonist) between 9.65 and 10.16 in the different assays. SR140333 also blocked in vitro [Sar9,Met(02)11]substance P-induced release of acetylcholine from rat striatum. In vivo, SR140333 exerted highly potent antagonism toward [Sar9,Met(02)11]substance P-induced hypotension in dogs (ED50 = 3 .mu.g/kg i.v.), bronchoconstriction in guinea-pig (ED50 = 42 .mu.g/kg i.v.) and plasma extravasation in rats (ED50 = 7 .mu.g/kg i.v.). Finally, it also blocked the activation of rat thalamic neurons after nociceptive stimulation (ED50 = 0.2 .mu.g/kg i.v.).

ACCESSION NUMBER: 1994:124815 CAPLUS

DOCUMENT NUMBER: 120:124815

ORIGINAL REFERENCE NO.: 120:21801a,21804a

TITLE: In vitro and in vivo biological activities of

SR140333, a novel potent non-peptide tachykinin NK1

receptor antagonist

AUTHOR(S): Emonds-Alt, Xavier; Doutremepuich, Jean Daniel;

Heaulme, Michel; Neliat, Gervais; Santucci, Vincent; Steinberg, Regis; Vilain, Pol; Bichon, Daniel; Ducoux,

Jean Philippe; et al.

CORPORATE SOURCE: Sanofi Rech., Montpellier, F-34184, Fr.

SOURCE: European Journal of Pharmacology (1993), 250(3),

403-13

CODEN: EJPHAZ; ISSN: 0014-2999

DOCUMENT TYPE: Journal LANGUAGE: English

L13 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN

TI Effects of an NK1 receptor antagonist, FK888, on constriction and plasma extravasation induced in quinea pig airway by neurokinins and capsaicin

extravasation induced in guinea pig airway by neurokinins and capsaicin The effects of FK888, an NK1 receptor antagonist, on airway constriction AΒ and airway plasma extravasation induced by neurokinins and capsaicin were investigated in guinea pigs. FK888 inhibited substance P (10-8M)- and neurokinin A (10-9M)-induced contraction of isolated guinea pig trachea, with IC50 values of 3.2 .times. 10-8 and 4.2 .times. 10-6M, resp. FK888 given i.v. inhibited substance P (13.5 .mu.g kg-1)-induced airway constriction with an ED50 value of 0.40 mg kg-1 but did not inhibit neurokinin A (1.1 .mu.g kg-1) - and capsaicin (3.1 .mu.g kg-1) -induced airway constriction at a dose of 1 mg kg-1. On the other hand, FK888 given i.v. inhibited airway plasma extravasation induced by substance P (1.3 .mu.g kg-1), neurokinin A (11 .mu.g kg-1) and capsaicin (100 .mu.g)kg-1) with equal potency and ED50 values of 0.011, 0.0063 and 0.019 mg kg-1, resp. When FK888 was given locally (into the airway directly) inhibitory activities were more potent than following i.v. administration. In this case FK888 inhibited substance P-, neurokinin A- and capsaicin-induced airway constriction with ED50 values of 3.2, 190 and 550 .mu.g kg-1, resp., suggesting that an about 100 times higher dose is required to inhibit neurokinin A- and capsaicin-induced airway constriction than substance P-induced constriction. FK888 given orally was also effective in substance P-, neurokinin A- and capsaicin-induced airway plasma extravasation with ED50 values of 4.2, 5.9 and 9.5 mg kg-1. These results demonstrate that FK888 is an effective in vivo NK1 receptor antagonist and the different inhibitory activity of FK888 on airway responses suggests that substance P-, neurokinin A- and capsaicin-induced airway plasma extravasation is solely mediated via NK1 receptors whereas in airway constriction only substance P-induced reaction is mediated via NK1 receptors.

ACCESSION NUMBER: 1993:462785 CAPLUS

DOCUMENT NUMBER: 119:62785

ORIGINAL REFERENCE NO.: 119:11089a,11092a

TITLE: Effects of an NK1 receptor antagonist, FK888, on

constriction and plasma extravasation induced in guinea pig airway by neurokinins and capsaicin Murai, Masako; Maeda, Yasue; Hagiwara, Daijiro;

Miyake, Hiroshi; Ikari, Norihiro; Matsuo, Masaaki;

Fujii, Takashi

Dep. Pharmacol., Fujisawa Pharm. Co., Ltd., Osaka, CORPORATE SOURCE:

532, Japan

SOURCE: European Journal of Pharmacology (1993), 236(1), 7-13

CODEN: EJPHAZ; ISSN: 0014-2999

DOCUMENT TYPE: Journal LANGUAGE: English

AUTHOR(S):

L13 ANSWER 5 OF 5 MEDLINE on STN

Effect of an NK1 receptor antagonist (CP-99,994) on hypertonic ΤI saline-induced bronchoconstriction and cough in male asthmatic subjects.

AΒ To investigate the role of NK1 receptors in the pathogenesis of bronchoconstriction and cough in asthma, we performed a randomized, double-blind, crossover study on the effects of a selective non-peptide tachykinin NK1 receptor antagonist (CP-99,994) on baseline measures of lung function and on hypertonic

saline-induced bronchoconstriction and cough in 14 male subjects with mild asthma. CP-99,994 (250 micrograms/2 hours) and placebo were administered intravenously in 2-h infusions during consecutive visits 5 to 7 d apart. Specific airway resistance (SRaw) was measured and spirometry was performed at baseline and at 35 and 60 min. Next, hypertonic saline challenge was performed by delivering 10 breaths of saline of increasing concentration (0.9 to 7% in 1% increments at 5-min intervals) via an ultrasonic nebulizer until SRaw increased from baseline by 200% or 20 units, whichever was greater. Throughout the challenge cough was counted from a taped record made from two microphones placed close to the subject's larynx. We found that CP-99,994 did not significantly affect SRaw or spirometric measures of lung function during the first hour of infusion. Although CP-99,994 infusion markedly attenuated the bronchoconstrictor response to the saline challenge in two subjects, it did not significantly decrease the area under curves obtained for SRaw and cough during saline challenge for the group as a whole (p = 0.9 for SRaw; p= 0.8 for cough). We conclude that administration of 250 micrograms/kg of CP-99,994 over 2 h does not significantly inhibit hypertonic saline-induced bronchoconstriction or cough in subjects with mild asthma

and does not have acute bronchodilator activity in these

subjects.

ACCESSION NUMBER: 1995392865 MEDLINE DOCUMENT NUMBER: PubMed ID: 7663799

Effect of an NK1 receptor antagonist (CP-99,994) on TITLE:

hypertonic saline-induced bronchoconstriction and cough in

male asthmatic subjects.

Fahy J V; Wong H H; Geppetti P; Reis J M; Harris S C; AUTHOR:

Maclean D B; Nadel J A; Boushey H A

Department of Medicine, University of California, San CORPORATE SOURCE:

Francisco 94143, USA.

SOURCE: American journal of respiratory and critical care medicine,

(1995 Sep) Vol. 152, No. 3, pp. 879-84. Journal code: 9421642. ISSN: 1073-449X.

PUB. COUNTRY: United States DOCUMENT TYPE: (CLINICAL TRIAL)

Journal; Article; (JOURNAL ARTICLE)

(RANDOMIZED CONTROLLED TRIAL) (RESEARCH SUPPORT, NON-U.S. GOV'T)

English LANGUAGE: Abridged Index Medicus Journals; Priority Journals FILE SEGMENT: ENTRY MONTH: 199510 Entered STN: 20 Oct 1995 ENTRY DATE: Last Updated on STN: 20 Oct 1995 Entered Medline: 6 Oct 1995 => d his (FILE 'HOME' ENTERED AT 22:49:43 ON 09 NOV 2008) FILE 'REGISTRY' ENTERED AT 22:51:32 ON 09 NOV 2008 STRUCTURE UPLOADED L1L2 0 S L1 SSS SAM L3 8 S L1 SSS FULL FILE 'CAPLUS' ENTERED AT 22:52:48 ON 09 NOV 2008 L46 S L3 FILE 'CAPLUS, MEDLINE, USPATFULL, BIOSIS' ENTERED AT 22:57:40 ON 09 NOV 2008 2399 S (NK1 (5A) (RECEPTOR(3A)ANTAGONIST)) L55 S L5 (P) (COPD OR (CHRONIC (W)OBSTRUCTIVE (W) PULMONARY(W) (DIS L6 L74 DUP REM L6 (1 DUPLICATE REMOVED) L8 1 S L7 NOT PD>20020708 FILE 'STNGUIDE' ENTERED AT 22:59:37 ON 09 NOV 2008 FILE 'CAPLUS, MEDLINE, USPATFULL, BIOSIS' ENTERED AT 23:04:30 ON 09 NOV 2008 L9 2399 S (NK1 (5A) (RECEPTOR(3A)ANTAGONIST)) L10 17 S L9 (P) (ANTICHOLINERGIC OR BRONCHODILAT? OR (M3 (3A) MUSCARI L11 0 S L10 AND SCOPINE

17 DUP REM L10 (0 DUPLICATES REMOVED)

5 S L12 NOT PD>20020708

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=> d que L6